

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:	TAKAGI ET AL.	DOCKET NO.:	AM100246-00
SERIAL NO.:	10/019,481	CONFIRMATION NO.:	1417
FILING DATE:	04/04/2002	EXAMINER:	LEVY, NEIL S.
CUSTOMER NO.:	26474	ART UNIT:	1615

FOR: ANT CONTROLLERS AND METHOD FOR APPLICATION THEREOF

Mail Stop Appeal Brief
Honorable Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Sir:

This is an appeal from the Examiner's final rejection of Claims 1, 10 and 13 – 47, dated July 03, 2006. Claims 1, 10 and 13 – 47 are currently pending.

The fee set forth in 37 C.F.R. § 41.20(b)(2) is paid by credit card. Form PTO-2038 is enclosed. Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account 14.1437. Please credit any excess fees to such account.

Respectfully submitted,
NOVAK DRUCE DELUCA & QUIGG, LLP

Michael P. Byrne

Michael P. Byrne
Registration No.: 54,015

1300 Eye St. N.W.
400 East Tower
Washington, D.C. 20005
Phone: (202) 659-0100
Fax: (202) 659-0105

REAL PARTY IN INTEREST:

The real party in interest is BASF Aktiengesellschaft, of Ludwigshafen, Germany.

RELATED APPEALS AND INTERFERENCES:

To the best of the undersigned's knowledge, there are no related interferences or judicial proceedings within the meaning of 37 C.F.R. §1.192(c).

STATUS OF CLAIMS:

- Claims 1, 10 and 13 – 47 are pending in the application
- Claims 1, 10 and 13 – 47 are rejected.
- Claims 1, 10 and 13 – 47 are subject to restriction and/or election requirement.
- Claims 2 – 9, 11 and 12 are canceled.

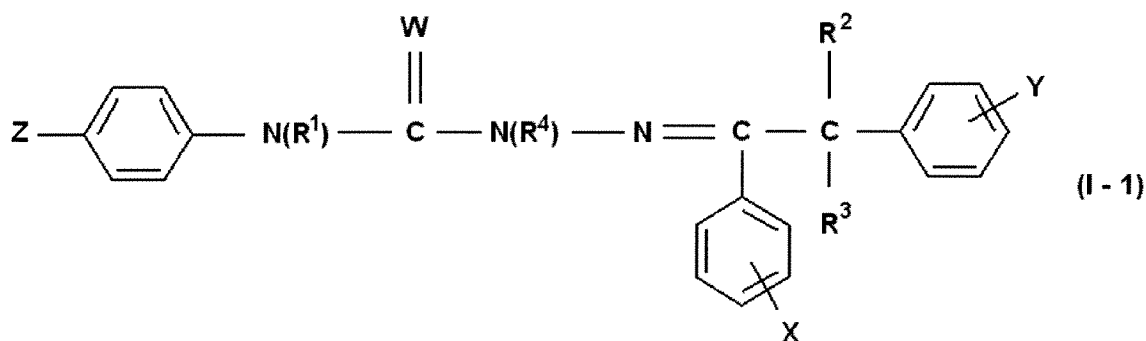
STATUS OF AMENDMENT:

No amendment was filed subsequent to final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER:

The independent claims involved in the appeal are claims 1, 15 and 16. All other claims are dependent on these claims and will not be argued separately in this paper. Summary of the subject matter of the dependent claims is omitted as unnecessary.

The present invention relates methods of using a hydrazine compound of formula (I-1):



wherein

R^1 represents hydrogen or C_1 - C_6 alkyl;

R^2 and R^3 , which may be same or different, represent hydrogen, hydroxyl, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkylcarbonyl or phenylcarbonyl;

R ⁴	represents hydrogen or C ₁ -C ₆ alkyl;
X	represents 1 to 5 same or different substituents selected from the group consisting of hydrogen, halogen, C ₁ -C ₆ alkyl and halo C ₁ -C ₆ alkyl;
Y	represents 1 to 5 same or different substituents selected from the group consisting of nitro and cyano;
Z	represents halogen, cyano, C ₁ -C ₆ alkyl, halo C ₁ -C ₆ alkyl, C ₁ -C ₆ alkoxy, halo C ₁ -C ₆ alkoxy, halo C ₁ -C ₆ alkylthio, halo C ₁ -C ₆ alkylsulfinyl or halo C ₁ -C ₆ alkylsulfonyl; and
W	represents oxygen or sulfur. ¹

Independent claim 1 relates to a method for controlling a pest selected from the Isoptera, Hymenoptera, Orthoptera and Psocoptera orders² which comprises applying to said pest or to a wooden part³ or to soil in the habitat of said pest⁴ an effective amount⁵ of the hydrazine compound of formula (I-1).

Independent claim 15 relates to a method for protecting houses⁶ or an article selected from construction materials, furniture, leather, fibers, vinyl articles, electronic wires and cables⁷ against a pest selected from the Rhinotermitidae, Termitidae, Kalotermitidae and Termopsidae families⁸, which comprises applying an effective amount⁹ of a hydrazine compound of formula (I-1) to said pest, a habitat or a nest of said pest, to a place at which occurrence of said pest is expected¹⁰ or to the article¹¹.

Independent claim 16 relates to a method for controlling a pest from the Formicidae family in crops¹², which comprises applying an effective amount¹³ of a hydrazine compound of formula (I-1) to said pest, to said crops, to soil surrounding said crops or to a nest of said pest.¹⁴

GROUND OF REJECTION TO BE REVIEWED ON APPEAL:

Whether the examiner erred in finally rejecting claims 1, 10, 13-47 under 35 U.S.C. §102(e) as being anticipated by Treacy et al. (USPN 6,342,518).

¹ Specification: page 2 at indicated line 25 through page 4 at indicated line 20.

² Specification: page 2 at indicated lines 5 – 9.

³ Specification: page 25 at indicated line 25 through page 26 at indicated line 8.

⁴ Specification: page 25 at indicated lines 25 – 30; and page 26 at indicated lines 8 – 10.

⁵ Specification: page 26 at indicated lines 18 – 24.

⁶ Specification: page 25 at indicated lines 29 – 30.

⁷ Specification: page 25 at indicated line 30 through page 26 at indicated line 8.

⁸ Specification: page 23 at indicated lines 9 – 19.

⁹ Specification: page 26 at indicated lines 18 – 24.

¹⁰ Specification: page 26 at indicated lines 11 – 17.

¹¹ Specification: page 25 at indicated line 30 through page 26 at indicated line 8.

¹² Specification: page 23 at indicated lines 20 – 29.

¹³ Specification: page 26 at indicated lines 18 – 24.

¹⁴ Specification: page 26 at indicated lines 8 – 11.

ARGUMENT:

Appellants respectfully urge that the rejection is made on the basis of an erroneous legal standard. In particular the examiner's statement that the broad, generic disclosure of *Treacy et al.* includes the claimed compounds and that "the Treacy disclosure is no better/no worse than applicant's"¹⁵ is deemed to be in error.

Anticipation under 35 U.S.C. §102 can be found only if a reference shows exactly what is claimed.¹⁶ The fact that claimed subject matter may be encompassed by a generic disclosure does not by itself establish obviousness of the claimed subject matter,¹⁷ and anticipation is the ultimate or epitome of obviousness.¹⁸ Anticipation under Section 102 requires therefore more than a generic disclosure which encompasses claimed subject matter. The test for anticipation is one of identity which means that the identical invention must be shown in the reference in as complete detail as is contained in the claim.¹⁹ In fact, the Federal Circuit has stated that it is error to treat claims as a catalog of separate parts, in disregard of the part-to-part relationships set forth in the claims that give those claims their meaning.²⁰

In light of the explanations and guidelines developed by the Courts, the teaching of *Treacy et al.* clearly falls short from establishing that the methods defined in applicants' claims are anticipated.

The teaching of *Treacy et al.* addresses an insecticidal composition²¹ which comprises synergistically effective amounts of

- (a) a neuronal sodium channel antagonist which *inter alia* encompasses compounds as represented by applicants' formula (I-1), and
- (b) an arylpyrrole.

¹⁵ Page 2 of the Final Office Action of July 3, 2006, at lines 7 – 8.

¹⁶ Cf. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985); *In re Marshall* 577 F.2d 301, 198 USPQ 344 (CCPA 1978); *In re Kalm* 378 F.2d 959, 154 USPQ 10 (CCPA 1967).

¹⁷ Cf. *In re Baird*, 16 F.3d 380, 29 USPQ2d 1550 (Fed. Cir. 1994); see also *Corning Glass Works v. Sumitomo Electric U.S.A.*, 868 F.2d 1251, 9 USPQ2d 1962 (Fed. Cir. 1989), which holds that a genus does not inherently disclose all species; and *In re Jones*, 958 F.3d 347, 21 USPQ2d 1614 (Fed. Cir. 1992), which holds that a genus does not render all species that happen to fall within the genus obvious.

¹⁸ Cf. *In re Grose*, 592 F.2d 1161, 201 USPQ 57 (CCPA 1979).

¹⁹ Cf. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989).

²⁰ Cf. *Lindemann Maschinenfabrik v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).

²¹ Cf. col. 1, indicated lines 61 to 67, of *US 6,342,518*.

Treacy et al. provide that this binary composition is effective against a wide variety of lepidopteran and coleopteran insects such as cotton bollworm, tobacco budworm, potato beetle and corn rootworm and the like.²² However, *Treacy et al.* merely contemplate the possibility that their synergistic binary composition itself “may be useful”²³ to control cockroaches, ants, termites or the like. Thus, *Treacy et al.* fail to show:

- (a) a method for controlling a pest selected from the *Isoptera, Hymenoptera, Orthoptera and Psocoptera orders* which comprises applying to said pest or to a wooden part or to soil in the habitat of said pest an effective amount of a certain hydrazine compound as is represented by applicants’ formula (I-1) which specifically requires for Y being 1 to 5 of the same or different substituents selected from the group consisting of nitro and cyano;²⁴
- (c) a method for protecting houses or an article selected from construction materials, furniture, leather, fibers, vinyl articles, electronic wires and cables against a pest selected from the Rhinotermitidae, Termitidae, Kalotermitidae and Termopsidae families, which comprises applying an effective amount of a hydrazine compound of formula (I-1) which specifically requires for Y being 1 to 5 of the same or different substituents selected from the group consisting of nitro and cyano, to said pest, a habitat or a nest of said pest, to a place at which occurrence of said pest is expected or to the article;²⁵ or
- (b) a method for controlling a pest from the *Formicidae family* in crops, which comprises applying an effective amount of a certain hydrazine compound as is represented by applicants’ formula (I-1) which specifically requires for Y being 1 to 5 of the same or different substituents selected from the group consisting of nitro and cyano, to said pest, to said crops, to soil surrounding said crops or to a nest of said pest.²⁶

²² Cf. col. 7, indicated lines 26 to 31, of *US 6,342,518*.

²³ Cf. col. 7, indicated line 32, of *US 6,342,518*.

²⁴ Cf. applicants’ Claims 1, 10, 13 and 14. Cf. also applicants’ new Claims 18 to 27 which depend upon Claim 1.

²⁵ Cf. applicants’ Claim 15 also applicants’ new Claims 38 to 47 which depend upon Claim 15.

²⁶ Cf. applicants’ Claims 16 and 17. Cf. also applicants’ new Claims 38 to 47 which depend upon Claim 16.

The examiner first cited *Treacy et al.* in the non-final Office action of June 11, 2004. A copy of lines 13 – 15 of page 4 of that Office action is provided below, to avoid any potential errors in quoting the hand-redacted document.

Compound I-1, claim of the instant invention was used to control Cockroach, ants, termites or the like (col. 7, lines 32-35, and compound I(a) (col. 8). Application is to plant (crop) foliage or insect habitat (col. 7, lines 9-12).

From the outset, the examiner misstated what is disclosed in the *Treacy et al.* reference. Column 7, lines 32 -35 of *Treacy et al.* actually state that “the composition of the invention may be useful in the prevention and control of public health pests such as houseflies, mosquitoes, cockroaches, ants, termites or the like (emphasis added).”

An accurate reading of *Treacy et al.* reveals that the phrase, “*the composition of the invention*,” refers to the combination of (1) neuronal sodium channel antagonist and (2) arylpyrrole insecticide. The cited phrase does not refer to the composition utilized in Appellants’ invention. The claims of appellants’ application require the utilization of an effective amount of the hydrazine compound of formula (I-1), itself. This specific compound is merely included, *inter alia*, in *Treacy et al.*’s disclosure of a neuronal sodium channel antagonist, which generically discloses a huge spectrum of compounds. Thus, while *Treacy et al.* provides for effective amounts of the binary composition, Appellants’ claims call for effective amounts of the specific compound of formula (I-1), itself. As such, *Treacy et al.* clearly fails to identically describe the respective element of appellants’ claims.

Moreover, *Treacy et al.* do not disclose that their binary composition “was used to control Cockroach [*sic*], ants, termites or the like”²⁷ as maintained by the examiner. Instead, *Treacy et al.* merely state that their binary composition *may be useful* for those purposes. At no time do *Treacy et al.* disclose the utilization of an effective amount of a hydrazine compound of formula (I-1) to control the specific pests required by the present claims.

²⁷ Page 4 of the non-final Office Action of June 11, 2004 at lines 13 – 14.

Thus, the examiner's argument that "the Treacy disclosure is no better/no worse than applicant's"²⁸ is inappropriate. The examiner simply has not applied the appropriate legal standard. *Treacy et al.* cannot reasonably be regarded as showing the identical invention in as complete detail as is contained in applicants' claims. It is respectfully submitted, therefore, that the rejection of Claims 1, 10, 13, 14, 16 and 17 under 35 U.S.C. §102(e) based on *Treacy et al.* should be reversed.²⁹

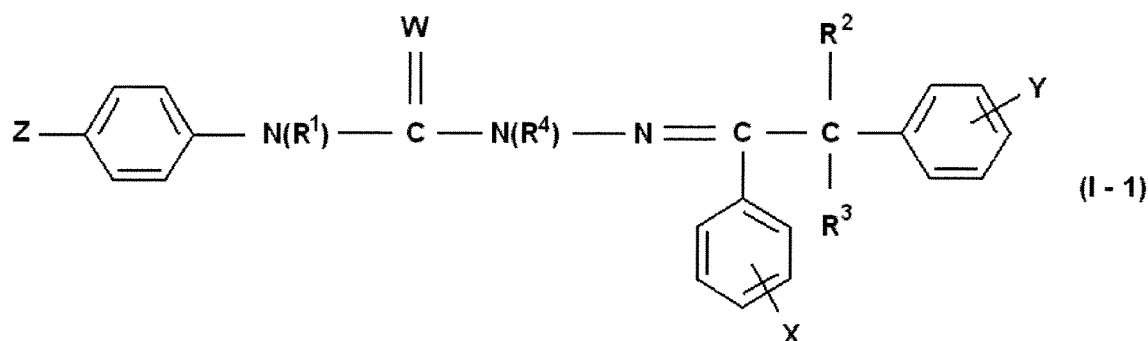
The examiner has admitted that *Treacy et al.* is not available as prior art under 35 U.S.C. §103. Therefore, the discussion presented on page 2 of the final Office action at lines 12 – 22, where the examiner comments on the 40% increase in mortality described in the Declaration of Dr. Hassan Oloumi-Sadeghi, is irrelevant.

²⁸ Page 2 of the Final Office Action of July 3, 2006, at lines 7 – 8.

²⁹ Cf. also applicants' remarks on pages 5 and 6 of the paper dated December 13, 2004, and applicants' remarks on pages 6 and 7 of the paper dated September 27, 2005.

CLAIMS APPENDIX:

1. A method for controlling a pest selected from the Isoptera, Hymenoptera, Orthoptera and Psocoptera orders which comprises applying to said pest or to a wooden part or to soil in the habitat of said pest an effective amount of a hydrazine compound of formula (I-1):



wherein

R^1 represents hydrogen or C_1 - C_6 alkyl;

R^2 and R^3 , which may be same or different, represent hydrogen, hydroxyl, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkylcarbonyl or phenylcarbonyl;

R^4 represents hydrogen or C_1 - C_6 alkyl;

X represents 1 to 5 same or different substituents selected from the group consisting of hydrogen, halogen, C_1 - C_6 alkyl and halo C_1 - C_6 alkyl;

Y represents 1 to 5 same or different substituents selected from the group consisting of nitro and cyano;

Z represents halogen, cyano, C_1 - C_6 alkyl, halo C_1 - C_6 alkyl, C_1 - C_6 alkoxy, halo C_1 - C_6 alkoxy, halo C_1 - C_6 alkylthio, halo C_1 - C_6 alkylsulfinyl or halo C_1 - C_6 alkylsulfonyl; and

W represents oxygen or sulfur.

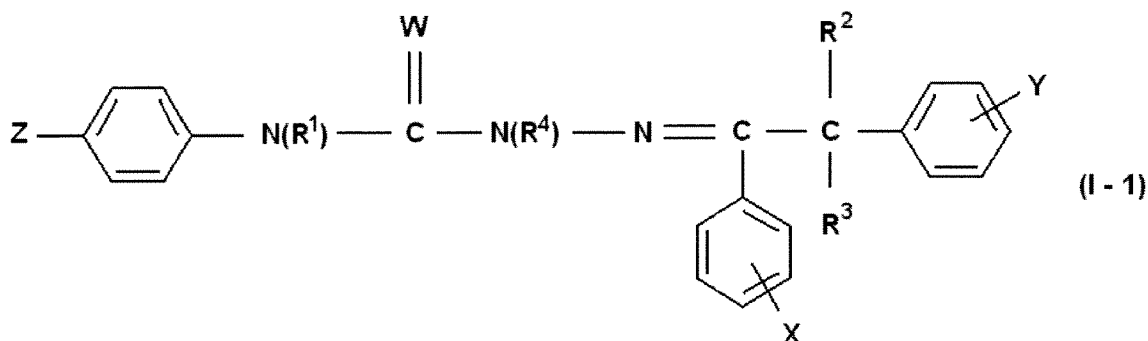
2. - 9. (canceled)

10. The method of claim 1, wherein the hydrazine compound is applied to the wooden part in an amount of 0.1 to 50 g/m², to a pest selected from the Rhinotermitidae, Termitidae, Kalotermitidae and Termopsidae families.

11. - 12. (canceled)

13. The method of claim 1, wherein R^1 to R^4 each denote hydrogen, X is trifluoromethyl, Y is cyano, Z is trifluoromethoxy, and W is oxygen.
14. The method of claim 1, wherein the pest is an ant or a termite.
15. A method for protecting houses or an article selected from construction materials, furniture, leather, fibers, vinyl articles, electronic wires and cables against a pest selected from the Rhinotermitidae, Termitidae, Kalotermitidae and Termopsidae

families, which comprises applying an effective amount of a hydrazine compound of formula (I-1):



wherein

R^1 represents hydrogen or C_1 - C_6 alkyl;

R^2 and R^3 , which may be same or different, represent hydrogen, hydroxyl, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkylcarbonyl or phenylcarbonyl;

R^4 represents hydrogen or C_1 - C_6 alkyl;

X represents 1 to 5 same or different substituents selected from the group consisting of hydrogen, halogen, C_1 - C_6 alkyl and halo C_1 - C_6 alkyl;

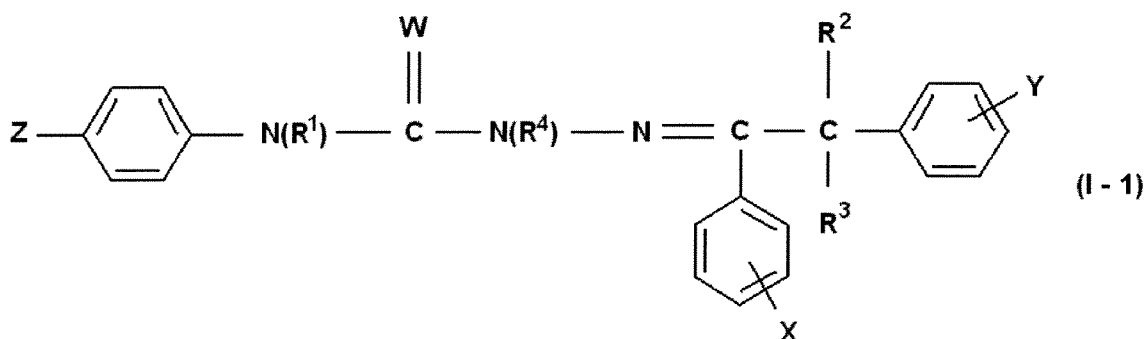
Y represents 1 to 5 same or different substituents selected from the group consisting of nitro and cyano;

Z represents halogen, cyano, C_1 - C_6 alkyl, halo C_1 - C_6 alkyl, C_1 - C_6 alkoxy, halo C_1 - C_6 alkoxy, halo C_1 - C_6 alkylthio, halo C_1 - C_6 alkylsulfinyl or halo C_1 - C_6 alkylsulfonyl; and

W represents oxygen or sulfur,

to said pest, a habitat or a nest of said pest, to a place at which occurrence of said pest is expected or to the article.

16. A method for controlling a pest from the Formicidae family in crops, which comprises applying an effective amount of a hydrazine compound of formula (I-1):



wherein

R^4 represents hydrogen or C_1 - C_6 alkyl, and

- X represents 1 to 5 same or different substituents selected from the group consisting of hydrogen, halogen, C₁-C₆ alkyl and halo C₁-C₆ alkyl,
R¹ represents hydrogen or C₁-C₆ alkyl;
R² and R³, which may be same or different, represent hydrogen, hydroxyl, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₁-C₆ alkylcarbonyl or phenylcarbonyl;
Y represents 1 to 5 same or different substituents selected from the group consisting of nitro and cyano;
Z represents halogen, cyano, C₁-C₆ alkyl, halo C₁-C₆ alkyl, C₁-C₆ alkoxy, halo C₁-C₆ alkoxy, halo C₁-C₆ alkylthio, halo C₁-C₆ alkylsulfinyl or halo C₁-C₆ alkylsulfonyl; and
W represents oxygen or sulfur.

to said pest, to said crops, to soil surrounding said crops or to a nest of said pest.

17. The method of claim 16, wherein the hydrazine compound is applied in an amount of from 1 to 500 g/m².
18. The method of claim 1, wherein R² and R³ are, independent of one another, hydrogen, hydroxyl or C₁-C₆-alkyl.
19. The method of claim 18, wherein R² and R³ are hydrogen.
20. The method of claim 1, wherein X is hydrogen, halogen or halo C₁-C₆ alkyl.
21. The method of claim 20, wherein X is halo C₁-C₆ alkyl.
22. The method of claim 1, wherein Y is cyano.
23. The method of claim 1, wherein Z is halogen, halo C₁-C₆ alkyl, halo C₁-C₆ alkoxy, halo C₁-C₆ alkylthio, halo C₁-C₆ alkylsulfinyl or halo C₁-C₆ alkylsulfonyl.
24. The method of claim 23, wherein Z is halo C₁-C₆ alkoxy.
25. The method of claim 1, wherein W is oxygen.
26. The method of claim 1, wherein X is halo C₁-C₆ alkyl, Y is cyano, and Z is halo C₁-C₆ alkoxy.
27. The method of claim 1, wherein R² and R³ are hydrogen, X is halo C₁-C₆ alkyl, Y is cyano, Z is halo C₁-C₆ alkoxy, and W is oxygen.
28. The method of claim 15, wherein R² and R³ are, independent of one another, hydrogen, hydroxyl or C₁-C₆-alkyl.
29. The method of claim 28, wherein R² and R³ are hydrogen.
30. The method of claim 15, wherein X is hydrogen, halogen or halo C₁-C₆ alkyl.
31. The method of claim 30, wherein X is halo C₁-C₆ alkyl.
32. The method of claim 15, wherein Y is cyano.
33. The method of claim 15, wherein Z is halogen, halo C₁-C₆ alkyl, halo C₁-C₆ alkoxy, halo C₁-C₆ alkylthio, halo C₁-C₆ alkylsulfinyl or halo C₁-C₆ alkylsulfonyl.
34. The method of claim 33, wherein Z is halo C₁-C₆ alkoxy.

35. The method of claim 15, wherein W is oxygen.
36. The method of claim 15, wherein X is halo C₁-C₆ alkyl, Y is cyano, and Z is halo C₁-C₆ alkoxy.
37. The method of claim 15, wherein R² and R³ are hydrogen, X is halo C₁-C₆ alkyl, Y is cyano, Z is halo C₁-C₆ alkoxy, and W is oxygen.
38. The method of claim 16, wherein R² and R³ are, independent of one another, hydrogen, hydroxyl or C₁-C₆-alkyl.
39. The method of claim 38, wherein R² and R³ are hydrogen.
40. The method of claim 16, wherein X is hydrogen, halogen or halo C₁-C₆ alkyl.
41. The method of claim 40, wherein X is halo C₁-C₆ alkyl.
42. The method of claim 16, wherein Y is cyano.
43. The method of claim 16, wherein Z is halogen, halo C₁-C₆ alkyl, halo C₁-C₆ alkoxy, halo C₁-C₆ alkylthio, halo C₁-C₆ alkylsulfinyl or halo C₁-C₆ alkylsulfonyl.
44. The method of claim 43, wherein Z is halo C₁-C₆ alkoxy.
45. The method of claim 16, wherein W is oxygen.
46. The method of claim 16, wherein X is halo C₁-C₆ alkyl, Y is cyano, and Z is halo C₁-C₆ alkoxy.
47. The method of claim 16, wherein R² and R³ are hydrogen, X is halo C₁-C₆ alkyl, Y is cyano, Z is halo C₁-C₆ alkoxy, and W is oxygen.

EVIDENCE APPENDIX:

None.

RELATED PROCEEDINGS APPENDIX:

None.